Table 1

Sample No.	Wire Bonding Conditions			Experimental Results	
	Power	Force	Time	Cracks	Wire Pull Test
1*	85mw	30g	20ms	Occurred	-
2	95mw	30g	20ms	Serious	-
3	75mw	26g	20ms	Occurred	-
4	70mw	25g	-	Occurred	Pass
5	70mw	20g	-	Occurred	Fail
6	60mw	25g	-	Occurred	Fail
7	60mw	20g	-	Less	Fail

* : Sample undergoing the standard wire bonding condition (STD parameters)

Table 2

Sample No. / Bonding Conditions	Pat. 1	Pat. 2	Pat. 3	Pat. 4	Pat. 5	Pat. 6	Pat. 7	Pat. 8	Pat. 9	Pat. 10	Pat. 11	Pat. 12
100mw/30g	8/8 cracked	2/12	5/12	3/12	3/12	8/12	11/12	6/8	10/12	8/12	4/8	4/8
90mw/30g	8/8	4/12	5/12	2/12	5/12	10/12	10/12	8/8	8/12	6/12	7/8	7/8
80mw/30g*	8/8	0/12	0/12	0/12	0/12	6/12	10/12	6/8	4/12	4/12	4/8	2/8
100mw/20g	8/8	7/12	6/12	4/12	8/12	9/12	12/12	6/8	11/12	12/12	6/8	8/8
90mw/30g	6/8	6/12	6/12	1/12	3/12	8/12	11/12	6/8	12/12	10/12	7/8	7/8
80mw/30g	4/8	1/12	5/12	2/12 peeling	1/12	4/12	11/12	5/8 peeling	11/12	10/12	4/8	5/8

Pat.2 : A=0.6μm, B=2μm; Pat.3 : A=1μm, B=2μm; Pat.4 : A=2μm, B=2μm; Pat.5 : A=0.6μm, B=1μm
Pat.6 : A=1μm, B=1μm

* : standard wire bonding parameters

#/# : (cracked pad numbers)/(total pad numbers)

Table 3

Sample No. / Bonding Condition	Pat. 1	Pat. 2	Pat. 3	Pat. 4	Pat. 5	Pat. 6	Pat. 7	Pat. 8	Pat. 9	Pat. 10	Pat. 11	Pat. 12
70mw/30g	4/6	0/49	0/49	peeling	0/9	0/9	0/9	4/6 peeling	0/9	5/9	0/9	2/6
80mw/30g*	2/6	0/49	0/49		0/9	0/9	5/9		0/9	6/9	0/9	0/6
90mw/30g*	4/6	0/49	0/49		0/9	0/9	6/9		0/9	5/9	0/9	0/6
70mw/20g	3/6	0/49	0/49		0/9	0/9	7/9		0/9	8/9	0/9	0/6
80mw/20g	4/6	0/49	0/49		0/9	0/9	5/9		0/9	9/9	0/9	3/6
90mw/20g	6/6	0/49	0/49		0/9	0/9	9/9		0/9	9/9	0/9	3/6

Pat.2 : A=0.6μm, B=2μm; Pat.3 : A=1μm, B=2μm; Pat.4 : A=2μm, B=2μm; Pat.5 : A=0.6μm, B=1μm
Pat.6 : A=1μm, B=1μm

* : standard wire bonding parameters

#/# : (cracked pad numbers)/(total pad numbers)